MODIS sensor Working Group (MsWG) Meeting Summary

September 28, 2005

Attendance: Bill Barnes, Stuart Biggar, Vincent Chiang, Gerhard Meister, Chris Moeller, Nianzeng Che, Vincent Salomonson, Junqiang Sun, Gary Toller, Eric Vermote, Aisheng Wu, Jack Xiong

Scheduled Agenda

Item 1: Recent L1B LUT delivery

- Aqua collection 4 forward update V4.3.1.20 (Sep 1) to DAAC.
- Terra collection 4 forward update V4.3.0.32 (Sep 2) to DAAC.
- Terra collection 5 forward update V5.0.6.8 (Sep 6) to DAAC.
- Aqua collection 4 forward update V4.3.1.21 (Sep 23) to DAAC.
 - **JX** Explains why collection 5 is using predicted m1 but not in collection 4.
 - **GM** The measured m1 (collection 4) has more noise in the products while predicted m1 smoothes the data. Also the predicted m1 has fewer LUT deliveries.

Item 2: Instrument status

- Terra SSR science formatting equipment experienced anomaly over the SAA region on day 2005/266 (Sep 23). The TMON 16 detected BIT failure and turned SFE-A off at 14:36. The FOT turned the formatter back at 19:47. Data lost for about 5 hours 10 min. Since this is at spacecraft level, MODIS instrument was not affected after recovery, except for data loss.
 - VS The Terra instrument team is discussing plan to change SSR data acquisition from 50/50 to 40/60 (40% day mode and 60% night mode each orbit) because of recent PWA failure.
 - JX Even with the 40/60 plan, a miss in TDRS contact will still lose same amount of day type data anyway. It's better to ask HQ for a full recycle of the SSR. The day mode reduction (to night mode) will impact the polar area data.
 - **CM** Expresses the concerns from Wisconsin that such scene condition for cloud mask is untested.

Action: Chris or Jack sends a note to Vince after the meeting.

- Aqua SRCA radiometric calibration.
 - JX We just had Aqua radiometric calibration using 20W without 30W combination. This is the first time since May this year.
 - VS Mentions an interesting report about water vapor in the lamp that might have some impact.
- Aqua Band-to-Band registration status is provided.
 - **JX** Eric brought to the technical meeting on the Aqua BBR/Land issue. Here is the BBR status chart. All the bands on VIS and NIR focal planes (warm FPAs) are within spec, but larger shifts on SMIR and LWIR cold FPAs. Band 2 along-scan is different than other bands probably due to the signal level (of SRCA). We do not use/fix the BBR shift in L1B.
 - **EV** I have seen document from the calibration workshop that the sign of the BBR is different? What I use is to shift the data (SWIR) by 1 line and the results in along-track direction are good. But in the along-scan direction, it is not as good as in along-track. Can we do something delaying the data acquisition on the focal plane?
 - NC It could be that I changed the direction in the along-track BBR. So the sign is reversed.
 - JX We can change that in along-scan direction but not in along-track direction. I need to talk to Roger (SBRS) next week for the possibility of some tests, and also talk to Robert on how much the shift from the geo-location. It's a phase delay we use in the SRCA test. So it can be done and has to be for all bands on the same focal plane.
 - **EV** That will be nice to do that on SWIR FPA. Working on the aerosol data, it does improve the average aerosol after the shift. I'll send some slides next time.
 - VS & CM Exchange the cloud top and optical depth impacts by the BBR shift.

Around the Table

Participant: Vincent Salomonson – On the Science Team Meeting

I had a conversation with Paula about the MODIS Science Team Meeting on Jan 3-5, 2006. The 2nd of January is federal holiday.

Participant: Vincent Salomonson – On the de-striping

I am little concerned about the de-striping algorithm not working well for Bo-Cai Gao in his Band 26 product.

CM – He has been using the product after B5 to B26 de-striping in L1B. But the next measure using de-striping algorithm seems not working for him.

JX – I will talk to Bo-Cai on this issue.

Participant: **Stuart Biggar** – On the calibration/validation

We did some field trips. The weather was hot and cloudy. It's not very successful.

Next MsWG meeting scheduled on October 12, 2005